

SUBJECT REQUIREMENT	LOCATION IN APPLICATION COMMENTS
<p>PART D PROCESS INFORMATION</p> <p>This part should include details of (1) the storage and/or treatment process(s), and (2) each hazardous waste unit to be utilized for these processes. Provide the technical design calculations, drawings and specifications for every process and unit. All design information submitted must be certified by a professional engineer registered in the Commonwealth of Kentucky.</p> <p>D-7 <u>Land Treatment</u> 401 KAR 34:220 and 38:200</p> <p>D-7a <u>Treatment Demonstration</u></p> <p>A description of plans to conduct a treatment demonstration. The description must include the following information:</p> <ul style="list-style-type: none"> • The wastes and the potential hazardous constituents in the waste • The data sources (e.g., literature, laboratory data, field data, or operating data) • Any specific laboratory or field test that will be conducted, including: <ul style="list-style-type: none"> • the type of test (e.g., column leaching, degradation) • materials and methods, including analytical procedures • expected time for completion • characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices • the characteristics of the waste to be tested • the operating and monitoring measurements taken during the course of the test • the duration of the test • the volume of waste used in the test • in the case of field tests, the potential for migration of hazardous constituents to groundwater or surface water • A description on how the field test or laboratory analysis conducted will accurately simulate the characteristics and operating conditions for the proposed land treatment unit including: <ul style="list-style-type: none"> • the characteristics of the waste (including the presence of constituents listed in 401 KAR 31:170) • the climate in the area • the topography of the surrounding area the characteristics of the soil in the treatment zone (including depth), and • the operating practices to be used at the unit 	

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<p>D-7b <u>Treatment Program</u></p> <p>A description of a land treatment program must be provided. The land treatment program must address the following items:</p> <ul style="list-style-type: none"> • The wastes to be land treated • How records will be kept on hazardous waste application dates and rates • Design measures and operating practices including: <ul style="list-style-type: none"> • waste application method and rate • measures to control soil pH • enhancement of microbial or chemical reactions • control of moisture content • A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land-treated based on waste analysis • The proposed dimensions of the treatment zone <p>D-7c <u>Treatment Unit Design and Operation</u></p> <p>A description of how the unit is or will be designed, constructed, operated, and maintained. This submission must address the following items:</p> <ul style="list-style-type: none"> • Run-on controls system capable of preventing flow onto the treatment zone during peak discharge from at least a 25 year storm • How run-off of hazardous constituents from the treatment zone during the active life of the land treatment unit will be minimized • Run-off management system to collect and control at least the water volume resulting from a 24 hour, 25 year storm • Management of collection and holding facilities associated with run-on and run-off control systems • How collection and holding facilities will be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system • Control of wind dispersal of particulate matter, if applicable <p>D-7d <u>Food Chain Crops</u></p> <p>If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description must be submitted of how the demonstration will be conducted including:</p> <ul style="list-style-type: none"> • Characteristics of the food-chain crop for which the demonstration will be made • Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration • Procedures for crop growth, sample collection, sample analysis, and data evaluation • Characteristics of the comparison crop including the 	

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<p>location and conditions under which it was or will be grown</p> <ul style="list-style-type: none"> • If food-chain crops are to be grown, and cadmium is present in the land treated waste, a description of how special requirements of 34:220 Section 5(2) will be complied with <p>D-7e <u>Special Requirements for Ignitable, Reactive, or Incompatible Waste</u> 401 KAR 34:220 Sections 9 and 10</p> <p>Ignitable or reactive waste must not be applied to the treatment zone, unless the resulting waste or mixture no longer meets the definition of ignitable or reactive waste, and 34:020 Section 8(2) is complied with.</p> <p>D-7f <u>Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027</u> 401 KAR 34:220 Section 11</p> <p>Hazardous waste numbers F020, F021, F022, F023, F026 and F027 (chlorinated dioxins, chlorinated dibenzofurans, and chlorinated phenols) must not be placed in land treatment units that are not enclosed unless the land treatment unit is operated in accordance with a management plan for these wastes that is approved by the Cabinet pursuant to 401 KAR 34:210 Section 9 and in accordance requirements of Chapter 34. Factors to be considered are:</p> <ul style="list-style-type: none"> • The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to escape into the atmosphere, • The attenuative properties of underlying and surrounding soils or other materials, • Mobilizing properties of other materials co-disposed with these wastes, • Effectiveness of additional treatment, design or monitoring techniques. <p>D-7g <u>Land Disposal Restrictions</u> 401 KAR 38:090 Section 2(23)</p> <p>Documentation of compliance with 401 KAR Chapter 37</p> <p>A copy of the notices of approval for any extensions or petitions granted under 401 KAR 37:010</p> <p>D-7 h <u>Unsaturated Zone Monitoring Plan</u> 401 KAR 34:220 Section 6</p> <p>Demonstrate compliance with 34:220 Section 6</p>	